

University of West Hungary

Faculty of Economics

István Széchenyi Management and Organisation Sciences Doctoral School

**THE IMPACT OF VENTURE CAPITAL
ON THE ECONOMY**

Thesis of Doctoral (PhD) Dissertation

Tamás Kovács

Sopron

2013

Doctoral School: István Széchenyi Management and Organisation Sciences Doctoral School

Head of Doctoral School: Prof. Csaba Székely DSc

Programme: Business Economics and Management

Head of Programme: Prof. Csaba Székely DSc

Supervisor: Ferenc Róbert Vági PhD

.....

Supporting Signature of Supervisor

1. Justification of the topic, objectives and hypotheses

The significance of small and medium-sized enterprises and the financing problems some of them is well-known. The author aims in his dissertation by elaborating the extensive scientific literature to describe and analyse the venture capital investments' weight in the SME's financing, their role and impact on the companies and the economy. The number of investments of start-up or already operating businesses in Hungary is negligible. Behind many of the financing transactions aiming the early and expansive stages stood a public organisation in the middle of the previous decade. Due to the weight of the public investments and the difficulties concerning complete mapping of private transactions the author focused on the public investments during the primary research.

The state recognized early that the venture capital (VC) market will not solve itself the SME's financing, therefore it intervened. The roleplaying has several ways; in the thesis the direct state investments in the middle of the 2000s will be scrutinized. The actuality of the governmental roleplaying can illustrate nothing else better, that already the fourth round of JEREMIE venture capital program developed by the EU has been published in Hungary.

In the light of the above mentioned the analysis of the national state's role has been formulated as priority aim in an aspect, which as main objective in works of other researchers less appeared. Tasks to be solved:

- to assess the impact of the activities of Hungarian direct investment implementing state organisations,
- to establish whether the state got closer to some proposed objects (especially to employment and regional targets) and
- to examine the success of public investments.

One of the most important goals of the economic policy is increasing the employment. The governments in power regard that attainable by inter alia solving the problems of the SME sector. The economic policy musters up a wide range of tools, one of them are the direct venture capital investments¹ In the target-setting of the investment implementing organisations and programs appears directly the intention of the increase in employment.

¹ According to Kovács (2011) some state capital investments are far away from the real venture capital, the author adverts to the details in his dissertation.

H1. The government's direct roleplaying by increasing the number of jobs contributes to achieving employment goals.

The aim of the regional policy is to reduce the regional disparities and to catch up the peripheral regions. These objectives also emerged by the studied organisations with different emphases.

H2. The studied state capital direct investment tools help the peripheral areas to catch up by focusing not on the undertakings in the Central Hungarian region.

A part of the venture capital transaction types can be classified according to the life phases of the target companies. The investor organisations using public sources are effective when they have different focuses, there are no duplications. (Of course the determination of focus may apply not only to life phases, but e.g. to sectors as well.) Some organisations aim to help undertakings active in the field of IT and telecommunications, or in other sectors but these companies have to be innovative being in the start-up and in the early development phase. In other cases the state typically focused on the growth phase of the companies by providing development capital.

H3. The state's development stimulating role was fulfilled in accordance with the companies' life cycle. The objectives prevail by the state investor organisations regarding the life phase, thus avoiding duplication of activity in this area.

The state's roleplaying might be evaluated with regard to the realised yields, but many times the yield maximisation should not be the primary goal, rather should be the development and competitiveness improvement of the company. Anyway because of the relatively small sample size and the lack of comparable data is impossible to assess them. Also in the everyday life is often heard that the state was labelled in certain situations as "bad manager". (The criticism of the direct state investments can be found in the literary section.) The author approaches the conception of success by the following way: he regards the number of companies that during the time of investment were closed or went into liquidation as failed transactions, all the others as the opposite namely successful.

H4. Direct state venture capital investments lead to more failure compared to the sector as a whole in Hungary.

Most of the newly start-up companies close in the first few years. The failure may have several reasons: incorrect assessment of the market, lack of knowledge and capital...etc. Only 48.5% of the 28 990 corporate enterprises established in 2005 were active also in 2010 in Hungary (KSH). According to the statistics of EVCA 2013 the venture capital funds investing in seed-sowing, start-up and early phase companies in terms of the number rates are forced to write off their losses more times as the later life phase financing buyout and growth funds.

H5. The Hungarian state direct capital investments financing the expansive phase are more successful (less to live in liquidation) as those financing the start-up and early stage.

2. The content, the methodology and the justification of the research

The impacts of venture capital investments can be analyzed in many ways. Patrícia Becskyné Nagy examined the added and „removed” value of venture capital with case studies. She reviewed 10 investments in 8 portfolio companies. These deals were made by only private investors but there was a fund raised by also EBRD.

Balázs Kovács examined the role of Hungarian state with some case studies but he did not analysed deeply the success of the investments and the development of portfolio companies because it was not his main objective.

In this dissertation the author analysed the activities and transactions of certain public organisations. These organisations are:

- Corvinus Venture Capital Fund Management Ltd. (CKTA, its managed fund: Corvinus First Innovation Venture Capital Fund, CELIN),
- Information Technology Venture Capital Fund Management belonging to Regional Development Holding Co (IKTK, its managed fund: IT Venture Capital Fund, IKTA)
- Hungarian Development Bank (MFB)

Investments were made between 2004 and 2007, and to my knowledge, in the case of CELIN and IKTA all transactions are included (4 and 11 investments). CELIN and IKTA transactions were chosen because they were active around the same time and implemented direct state

investments. In addition according to some researchers they were the closest to the "real" market venture capital organisations.

The SME Development Capital Investment Program of MFB which started in mid-2003 came to focus. These businesses differ from the characteristics of market investments in many points, however, these are presented in the statistics of the Hungarian Private Equity and Venture Capital Association (HVCA) that is why the author paid attention to the programme. According to the survey of HVCA and the annual reports of the MFB the complete list of companies was prepared. The extent of the amount to be used directly for capital increase was between 50 and 500 million Hungarian forint by companies, however, shortly after the start according to an individual decision there was an opportunity for investments exceeding 500 million. These businesses because of their size and nature, for example Ganz Transelektro Rt., were included among the analyzed target companies. So, the author studied 19 companies, among which a couple of companies were in a group, as well as, their capital increase were at the same time. By the statistical analysis these were operated as a unit, so the sample size is 17.

Among the issues to be examined may appear, inter alia, that how much are spent on R&D in the various company life cycles, how are the human resource management, the number of employees, the company's turnover, earnings and the ratio of exports developing. Further important content might be included in the data that relate that in what size funded venture capital firms contribute to the state budget revenues. Opportunities' examination of state intervention in the market can be performed in relation to income as well. Some parameters are worth to be examined in different dimensions: what are the geographical location of the companies, in which sector are they active and how big is their role in the sector.

The economic and social effects of the venture capital are presented in the dissertation by the investigation/research of the followings:

- the number of employees,
- turnover and export proportion,
- profit,
- location.

The foreign surveys, made by for example the American and European VC associations, correlate the data of VC-backed/PE-backed companies: to all companies of the relevant national economy, to the results of a given industry; to all companies of the stock exchange of

the relevant country. Unfortunately, the latter opportunity is quite cumbersome in Hungary because of the following reasons:

- Budapest Stock Exchange (BSE) is not big enough: there are only a few companies are presented on the public market and the capitalization is quite small.
- In case of the of the domestic companies which received private equity, the investor only exited a few times by leading the company to the stock exchange (IPO), as well as, in these cases they repeatedly did not choose the BSE.

The number of public investments is very little compared to the number of SMEs working in Hungary so economical or sectoral comparison would not be appropriate to come to major conclusions. As the best option, target companies may be compared to their competitors and it could be a proposed object of the studies on continuation.

By the primary research there was an option as questionnaires were sent to the managers/owners in letter or online but I decided in the end not to research in this way because of two reasons:

- according to the experiences there is a very poor willingness to respond,
- the required number data (staff, revenue... etc.), if one answers 'by head' regarding several years, the data may not be real but only an estimation,
- there are many companies which were closed since then or eliminated so getting the availability is uncertain.

The sources of the determining the companies, the characteristics of businesses, the analysed data:

- HVCA Yearbooks and Statistics,
- press news,
- company information databases:
 - Ministry of Public Administration and Justice Company Information and Electronic Company Proceeding Service (copies of register, reports)
 - CompLex Company database
- websites of target companies.

By the data concerning the employment the author used the average statistical number of employees in the notes to the financial statement. He does not think it is the best data with which the possible impact on employment can be analysed. Beside its contential background

the number itself normally rounded to the nearest whole number must be provided by the companies, but he didn't find obtaining other data as viable option.

Changes in turnover were judged according to the net revenues of the sale, and the applicant also analysed the net revenues of the export sale, in order to see how active the companies with state capital in the field of export.

Among the categories of earnings, the earnings before interest and taxes, the earnings before and after the taxes, and return on equity were also analysed.

In order to make statement of statistically applicable connection crosstab analysis were carried out in some parts of the hypothesis.

In the dissertation, the author shortly reviews the companies, the information concerning investment and then he analyses them. The companies concerned in the survey are presented in the following tables.

Table 1. The surveyed companies of CELIN and IKTA

Investor	Portfolio company	Main activity/Sector	Year of establishment	Year of investment
CELIN	N-GENE Kutatási és Fejl.-i Kft.	research and experimental development on biotechnology	1998	2006
	Maggot 2006 Kft.	research and development of science and technology	2007	2007
	Agroinvent Zrt.	other agricultural machinery manufacturing	2006	2006
	Literaton Kft	database service, on-line edition	2006	2006
RFH IKTA	BLOGTER.COM Kft.	Web portal service	2006	2007
	edusys Infokommunikációs Zrt.	other information technology service	2001	2006
	EME Zrt.	other professional, scientific and technical activities (mobile payments)	2005	2006
	Inter.net Média Szolgáltató Kft.	Telecommunication (internet service)	2004	2004
	Gergi Háló Kft. ²	Telecommunication	1999	2007
	MediSmart Szolgáltató Kft.	M.n.s. and other information service ³	1999	2004
	Sani - Net Medic Kft. ⁴	software, programming	2003	2004
	Odin Technologies Budapest Kft.	information technology consulting	2006	2006
	OPTICON Telekomm. Kft. ⁵	fixed-line telecommunications	1998	2006
	Stormregion Kft. ⁶	software edition	1996	2005
	EVOLIT Informatikai és Szolg. Rt.	the operation of IT systems	2002	2004

Source: own collection

² The predecessor of the limited partnership passed into limited liability company in 2004.

³ System of health services and electronic data base services.

⁴ Previous name: Meditcom Kft. but from 2013 Meditcom EMER Kft.

⁵ Established as Bács-NET, from January of 2004 the name was changed to Opticon

⁶ In December of 1996 known as Media Star.

Table 2. The surveyed companies of MFB

Portfolio	Main activity/Sector	Year of establishment	Year of investment
Arany Kapu Borászati Melléktermék-feldolgozó Rt. ⁷	wine-making by-products processing	2002	2003
Budai Egészségközpont Kft.	other human health services	2000	2004
Civil Biztonsági Szolgálat Rt.	investigation and security activities	2001	2004
Csépány és Társai Zöldség- és Konzervipari Nagykereskedelmi Kft.	wholesale trade services of fruit and vegetable and canning	1993	2005
Grafika Press Rt.	printing industry	2003	2005
Kenguru Gold Innovációs és Kereskedelmi Kft.	manufacture of underwear	1991	2005
Kenguru Kid Kft.	retail trade services of textiles	2000	2005
Organica Környezettechnológiák Rt.	industrial and municipal wastewater treatment plants construction and operation	2003	2005
Lamba Rt.	manufacture of soft drinks, mineral water	2003	2004
LAUREL Számítástechnikai Kft.	software consultancy and supply	1993	2005
Monofix Ker.-i és Szolg. Rt.	electronic household goods trade	1997	2005
PrintXBudavár Rt. ⁸	polygraphic activity	2001	2004
Royal Balaton Golf & Yacht Rt. ⁹	golf course builder and operator	2005	2006
Skublics és Társai Kft.	extraction of ornamental and building stone (mining)	1995	2005
Sz+C Stúdió Kft.	hardware-, painty- and glass retail trade	1997	2006
Stúdió 96 Reklámügynökség és Nyomda Zrt. ¹⁰	polygraphic activity	2005	2005
Duna-Resort Kft.	hotel construction and operation	2003	2006
Victoria Gem Kft.	jewelry market	1994	2004
Victoria Trade Kft.	jewelry retail	1989	2004

Source: own collection

3. Results

3.1. Job creation

To assess the impact on employment is not an easy thing. Firstly, if it is an investment in a new business, it is already a job creation. That is positive in itself. If the new company actually had predecessor or if it is a long-established company, at first it may be expedient to look at the changes of data after the join. If the increase of the employees number's average is not visible even it can be asked what would happened if the state did not invest in. Because

⁷ In fact, the company has operated since 1993 known as Arany Kapu Szombathely Tejtermék Feldolgozó Co. The first transaction of the programme at the end of 2003.

⁸ The predecessor had operated since 1991.

⁹ The company came about the transfiguration of Balaton Golf Ltd established in 1999.

¹⁰ The predecessor had operated since 1994.

if the company did not get capital it might had bankrupt and jobs ceased early. This examination is very difficult almost impossible. So the author observed that after the year of public investment the number of employees¹¹ increased or not. Among the 13 analysed companies of IKTA and CTKA¹² there was an increase in staffing level only in 4 cases but this increases are significant. Whereas in the other companies except one the number of employees was in low level (1-6 person) and the accidental decreases were not high in absolute terms so the number of employees has increased in net sense too. There is a similar situation that in case of MFB SME Development Capital Investment Program. In 7 target companies the average of the number of employees has increased. In the year of 2011 the headcount was 5.8% more than in the year before the investment¹³

3.2. Location of the companies

As businesses in the periphery have less access to capital than the centrally businesses¹⁴, so I examined that geographic concentration in public investment is prevails or not. The location of invested company's seats by the JEREMIE fund has been presented in the literature review. The seats of the direct public investments in the middle of the last decade in case of CKTA and IKTA are the follows: 12 companies are based in Budapest and 3 are in rural settlement.¹⁵

¹¹ To follow this is difficult too; just think about the possible demergers or outsourcings to subsidiaries or another subcontractor. In addition the impact on employment may appear the supplier companies too.

¹² The reports of two companies were not available.

¹³ Given the fact that during the liquidation process or terminated companies have not got any employee. In addition, there are at least two reasons why the number is probably a low estimate of job creation. At the CBSZ despite the steadily increasing orders and revenues the number of employees decreased until 2010 and only reached again the level of 2004 in 2011. In the sector was widespread long to use of subcontracting chains. Subcontracting chains could not apply for orders after the amendment passed by the Parliament in March 2011, only allow one subcontractor (Fabók 2011). According to the opinion of the candidate all of these confirm the services (or from 2006 due to the reclassification the mediated services) value changes over the years. He assumes the underestimate of employment growth rate also because the Organica – VWS was separated out from the Organica Környezettechnológiák in mid-2007. The employees of Organica – VWS are not included in statistics.

¹⁴ For example in 2005 84.6% of the private venture capital investments occurred in companies in Central Hungary. Just two company's seats were in another region. One of the companies based Budapest has got a branch in Central Transdanubia Region. (Monostorapáti).

¹⁵ Indeed the Gergi Háló's seat is in the capital city but there are branches in Bányonyenyere and Dorogháza. The networking activities and services performed in County Nógrád so in the statistical analysis the author placed it in the „rural” category later.



Figure 1. The seats of IKTA and CKTA companies

In terms of the seat at the time of investment the Central Hungarian companies are in the majority in MFB's portfolio too. 9 out of 19 were in the capital, other 3 were in Solymár (County Pest). This mean 63.16% of all the companies.

According the KSH's database 50-51% of the active corporate enterprises were in Central Hungary between 2004 and 2007.

In the next step the author examined the places of branches too. Only 13 of the 32 cases¹⁶ (40.53%) can be say that the seat of the target companies or at least one place of branch was in peripheral regions.

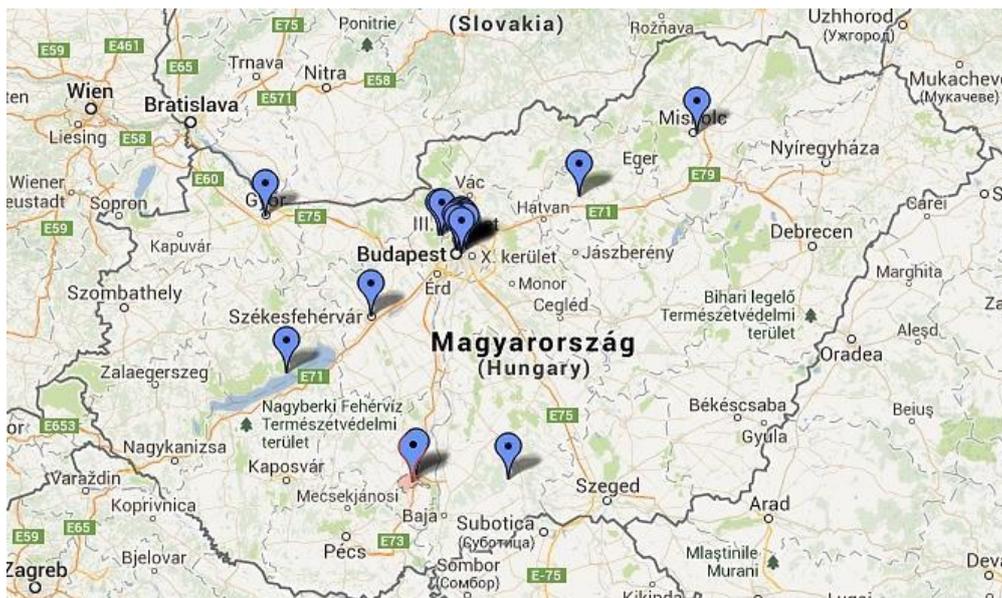


Figure 2. The seats of MFB's companies

¹⁶ Two-two companies counts one-one because they belong to groups.

So in case of public investments in vast majority the central located or central started companies get capital and therefore the stimulation of peripheral areas did not prevail.

As perhaps in the MFB's capital investment program regional policy objectives are more pronounced, the marked crosstab-analysis has also examined whether there is correlation between the „regional activity”¹⁷ and the identity of investor. The result is no significant correlation between the two.

3.3. Life-cycle of target companies in the investment period

In carried out transactions up to 2007 by duo of CKTA and IKTA, 10 transactions affected companies in start up or other early stage (66.67%) while 5 transaction focused for companies on later stage. (33.33%)

In the MFB SME Development Capital Investment Program 15 case fell into the category of expansive type of transaction (88.24%)¹⁸, and in two cases tourism project companies received capital for the investments (11.76%).

The author examined with cross-tab analysis that statistically detectable the correlation between the identity of the investor and the stage or not. The results show that there is a significant relationship. This confirmed by the Pearson chi-square test. ($\chi^2 = 10.248$, degrees of freedom = 1, $p = 0.001$), the connection strength is mediocre at best (Cramer's V = 0.566).

3.4. Exits

In case of CELIN and IKTA without further data the another deems successful the cases. where the company has not ceased and not in insolvency proceedings during the investing period. That is why probably the losses have not been accounted.

In 5 cases there was no exit yet so based on reports the author described the expected results himself. In case of N-Gene and Maggot 2006 having regard to the nature of activity the author has not taken a stand therefore not been included in the crosstab-analysis.

¹⁷ If the company based in the peripheral regions or at least one branch is here in the year of investment, it was ignored like a convergence to regional objectives.

¹⁸ If we look the two group's companies separately, the number of expansion transaction is 17.

Table 3. Exits of CELIN and IKTA

	pc	%
successful exit	3	26.67
successful partly exit	1	6.67
unsuccessful	5	33.33
has not exit yet	6	33.33
<i>probably unsuccessful</i>	<i>1</i>	<i>6.67</i>
<i>not known yet</i>	<i>2</i>	<i>1,33</i>
<i>probably successful</i>	<i>3</i>	<i>13.33</i>
total	15	100.00

Source: own collect

The MFB program which launched in 2003 in 13 cases the exit was happened that the original owners or the company bought the shares of the bank (or in case of CBSZ there was a capital reduction). In 5 cases (29.41%) during the investing period the liquidation proceeding has begun or in most cases the company has also ceased. Three of these transaction which realized in 2004 and 2005 State Audit Office of Hungary deals more detail.¹⁹

In Central and Eastern Europe the losses have been described²⁰ 18.75% all of the exits in 2009 and 14.29% in 2010. (Figures for the whole European VC market 16% in 2008, 27.5% in 2009, 24.5% in 2010 according EVCA (2013b)). Although there is always the danger that in surveys like EVCA wrong fund's wrong transactions are missing, unsuccessful exit of the Hungarian government organizations rate differs considerably from the average.

The reasons may be manifold, starting with the principle that the government intends to take part in the financing gap ((ignoring the possible crowding-out effects) choose investment from contra selected clientele.

The cross-table analysis showed that there is a relationship between the investor and personal success. Although the MFB proportionally more successful, but it is not significant, and there is no correlation between the two.

¹⁹ The cases of Lamba Rt., Victoria Gem, Victoria Trade, and Monofix Rt.

²⁰ This type of exit defined by EVCA not fully corresponds to my determination in the case of failure but I think there is a close relationship between the two. I note also that because the low number of Hungarian transactions – otherwise much of these has been implemented by governmental organizations – national comparisons are not performed.

3.5. The profitability of companies

In case of the CKTA's and IKTA's portfolio also the profitability has been analysed. By the indexes most of the companies granted weakly. The profitability changes very hectic, but that is apparent, that in many cases the ROE using EBIT is very low, or even negative. The comparison to the direct competitors would be practical in the future. Naturally the bad profitability is in correspondence with the failure of exits, for the potential causes we could find answers in the processed literature. The author has not analysed the causes, but in relation to the Hungarian cases, we can mention that the state organizations are usually passive after the capital increase, they are not going deeper in the corporate governance.²¹

3.6. The relation of the stage and the success

The most newly start-up businesses are wound up in the first few years of their operation. The failure may have several causes: the not suitable survey of the market, the lack of knowledge, the lack of capital... etc. According to the statistic of KSH, from the 28 990 company formed in Hungary in 2005, just 48.5% operated in 2010 (KSH 2012). According to the statistics of EVCA in 2013, those venture capital funds, which invest in sower, start-up or early stage, have to write off losses more times regarding to the rate of the number of pieces, than the buyout and growth funds, which finance later stages of life.

Table 4. The number and rate of loss writing offs in comparison to the total exits in Europe

	2007		2008		2009		2010		2011		2012	
	No. comp.	%*										
Venture	205	13.7	203	16.0	309	25.7	287	24.5	233	21.8	242	23.7
Buyout	27	2.6	45	6.5	63	14.7	65	11.9	37	5.4	41	7.0
Growth	3	1.7	12	9.1	42	16.8	57	13.5	44	12.0	91	18.6

* rate in % in the given category.

Source: EVCA (2013b)

²¹ Typically also in the MFB's program the emphasis has been put on monitoring, and also because of the minority property have the public investors smaller latitude.

In connection with the public investments the author has analysed, that by the various types of transactions how many times have not happened liquidation during the investment's period. From the 30 evaluated transactions, 20 were later, expansive capital investment. 30% of them were unsuccessful. From the 10 piece of transactions, which have financed start-up and early stage, 50% have ended with liquidation.²² The variance looks significant, but according to the cross-table analysis there is no significant correlation between the stage and the success by these public investments.

3.7. The export activity of the portfolio companies

IKTA preferred those investments, which produce employment opportunities, serve the implement and application of higher technological level and know-how, or create further opportunities for export (GKM 2005). Based on the analysis of reports related to IKTA and CKTA we can say that from 13 companies²³ 4 have export activity, but none of them had regular export sales revenue. One reason of this could be the lack of success, the other is that, actually some companies are in the national market determinate. Furthermore we should mention that companies may need more time to appear in foreign markets. In comparison to the sales revenue of total portfolio companies, the export revenue was under 0.4%. The Odin Kft. which practises the most significant export activity had once a very high export proportion from the total revenue.

According to Csapó (2006) and Tóth (2005) the MFB SME Development Capital Investment Program aimed to ground and widen the opportunities for regional and European Union expansion for business organizations. The reports of 13 companies were available. From them 11 had at least in one year sales revenue from export and 8 of them had regularly sell abroad. In comparison to the sales revenue of total portfolio companies was the revenue on export 7.3%.

²² If we take into consideration that how many companies have operated also in 2011 after the exit, than we can get a different number. From the former companies of MFB, after the exit have come two other companies under liquidation process, and one of the former companies of IKTA have wounded up with voluntary liquidation.

²³ There is no data from Stormregion and Evolit.

3.8. New and novel results

The research is based on the comprehensive investigation of the national and the international literature, and these are supplemented by a personal data processing and analysis about public investments. In connection with the hypotheses the followings were formulated:

T1. The role of the state – in case of the three analysed organisation, dealing with direct capital investments – had a positive effect on employment. On the level of the national economy the direct, net job creation is not significant, but this is also due to the relative low investments.

T2. By the examined direct public capital investments mostly those companies got capital, which were in the centre, operated or started-up in the centre and the help, the development of the peripheral areas did not prevailed, so I reject my hypothesis. The MFB's capital program aimed the most strongly the regions to catch up, but there is no statistical significant difference in the regional activity of the investment organisations.

T3. The state's development incentives role has been realized duly to the lifecycle of the companies. By the analysed public capital investment organisations in respect of the stage enforced the state intentions, avoiding with it in this area the parallel activity.

T4. Compared to the total venture capital sector the direct public venture capital investments in Hungary lead to more failure, if we mean failure as liquidation during the investment period. However deeper analysis (e.g. sectoral comparison) is not possible due to the small sample size.

T5. By the examined transactions those direct public capital investments, which finance the expansion stage, are not significantly more successful, than the start-up, early stage financiers.

4. Conclusions, proposals

The opinions are not only in relation to the venture capital market spread about the impacts and effectiveness of government's role. The opponents adduce the crowding out effect, the bad investment decisions, and the political pressure. In the last years came the role through hybrid constructions into view, which may improve the efficiency of the public capital and the achievement of public goals.

In the research the direct capital investments of three public organizations between 2004 and 2007 have been examined. On the national market the hybrid financing is still in its infancy, not so many years have passed to several effects in depth could be analysed and be able to compare the two types of participation. It is worth to analyse in the future. However, the compare of the effectiveness of the equity capital and other programs could be also an interesting research topic.

Comparing the finance of SMEs in peripheral area could now been made. The direct investments of IKTA and CELIN, but also MFB are directed to the capital city, the economic centre, while the investments in the JEREMIE program – *thanks to the legislation* – have financed a higher proportion of SMEs operating in the country. It seems like the regional targets formulated as general objectives are not fulfilled until the regulatory system not separates specifically the outstanding capital in the centre and in the peripheral regions.

The Széchenyi Capital Investment Fund (SZTA) was established near JEREMIE and its investment should also always serve the realization of employment, growth and regional development targets. The question is that, will it eventually move on the footsteps of its predecessors or beyond fulfilling the employment targets the regional development objectives will be achieved too. The possibility from the regulatory site is given: in each region there is 2-2 billion forint as investable capital for the companies operating in the region. According to the website of SZTA at 31.05.2013., from the 17 implemented transactions a little more than a half has not affected company from the capital city.

The profitability indexes and the large numbers of unsuccessful exits (liquidation) may indicate several things, such as

- the incorrect process of choosing company (may be reasons according to the literature the lack of experience, the political pressure, and as also ÁSZ (2006a) found the deficiencies of internal regulation),
- choosing from a contraselected client base (because the state would like to fill not only the financing gaps because of capital size),
- little or no participation in strategic management.

By the examined direct capital investment provider organizations and also by SZTA after concluding the transaction the investor's activity is primarily limited to the monitoring. The market investors – of course with different intensity – contribute to the success of the portfolio company with their knowledge and contact capital. The state should consider that, in

which cases should it and in what form would it ensure the latter. Till the completion of further national researches the author proposes for the government decision-makers, that for achieving the long-term, complex positive effects, they should continue to prefer the already deployed hybrid financing techniques to direct capital investments to finance SMEs.

However it is also a fact that many owners, business leaders are reluctant to let others say in decision-making, not willing to (or if they do, they cannot) do joint company management. The state should help the elimination of the financing gap not necessarily with just its capital investments, but it should develop an environment, which supports the markets private investments. The changes in the area of taxation, the high-quality education system, and the development of creativity and risk taking incentive structures would be suitable devices for the development of informal and formal markets. It is important to note the creation and support of operation of business angel networks.

The determination of suitable national incentive devices (e.g. in the area of taxation) may design an additional research area for the future.

5. The publications of the author concerning the issue of the dissertation

Academic lectures (on CD or in conference proceedings)

- Kockázati tőkebefektetések hatásai mikro- és makroszinten. 2006. május 31., I. KHEOPS Tudományos Konferencia, Mór. pp. 317-323. ISBN 963 2298 49 7
- Economic and social impacts of private equity and venture capital. 2006. október 2-4., 4th International Conference for Young Researchers of Economics, Szent István Egyetem, Gödöllő. pp. 85-90. ISBN 963 9483 66 4; 963 9483 68 0
- Kockázati tőkebefektetések a vállalat életében. 2007. május 30., II. KHEOPS Tudományos Konferencia, Mór. pp. 379-384. ISBN 978 963 8755 30 8
- Kockázati tőke a vállalat életében. 2008. május 14., III. KHEOPS Tudományos Konferencia, Mór. ISBN: 978 963 8755 33 9
- Állami kockázati tőkét kapott vállalatok elemzése. In: Tehetség és kreativitás a tudományban: TALENTUM Nemzetközi Tudományos Konferencia tanulmánykötet. (Társszerző: Bischof Annamária) Konferencia helye, ideje: Sopron, Magyarország, 2012.május 22. Nyugat-magyarországi Egyetem Közgazdaságtudományi Kar, 2012. pp. 666-670. ISBN 978 963 9883 92 5
- Kockázati és magántőke-befektetések Európában és hazánkban, különös tekintettel az állam néhány hazai ügyletére. Változó környezet – Innovatív stratégiák. Konferencia CD. NYME KTK. Sopron, 2012. pp. 835-840. ISBN 978 963 9883 87 1
- Analysis of venture-backed companies. Kaposvár University, Faculty of Economic Sciences. Kaposvár, 2013. pp. 399-403. ISBN 978 963 9821 62 0
- Állami kockázati tőke-befektetések értékelése a munkahelyteremtés és a földrajzi elhelyezkedés szempontjából. Felelős társadalom, fenntartható fejlődés. Nemzetközi tudományos konferencia a Magyar Tudomány Ünnepe alkalmából. Sopron, 2013.11.13. (megjelenés alatt)

Book review

- Könyvismertető Makra Zsolt: A kockázati tőke világa c. könyvéhez. Vezetéstudomány, XXXVIII. évf. 2007. 3. szám. ISSN 0133-0179

Presentations (not published)

- Üzleti angyalok szerepe a vállalkozás-finanszírozásban. Fiatal regionalisták V. országos konferenciája, Széchenyi István Egyetem, Győr. 2006. november 10-11.
- A működőtőke-beáramlás és a régiónkénti gazdasági fejlettség összefüggései. Fiatal regionalisták V. országos konferenciája, Széchenyi István Egyetem, Győr, 2006. november 10-11. Társszerzők: Kovács Róbert, Lentner Csaba.
- Kockázati-tőke-befektetések és azok gazdasági vetülete. A kockázati tőkebefektetés szerepe és lehetőségei a regionális gazdaságfejlesztésben konferencia, Győr, 2007. február 15.
- A vállalkozás-finanszírozás alternatívái: Kockázati- és magántőke-befektetések. Sopron TV, 2007. április
- Hogyan készítsünk üzleti tervet? Sopron TV, 2008. január.

Electronic Article

- Kockázati tőke: 100-ból egy valódi befektetés. 2007. március 14.
http://hvg.hu/print/20070314_kockazati_toke.aspx